

communications should be sent to the Geographical Society, 3, Rue Christine.

At the meeting of the French Geographical Society last week, a gold medal was presented to Mr. Washburne for the family of the late Capt. Hall, the American Arctic explorer.

In the University of Edinburgh, Miss Flora Masson has passed the examinations for University certificates in Arts for women, with honours of the first class, in English Literature; and Miss Annette Conan Doyle has passed the ordinary examinations in English Literature, Chemistry, and Mathematics.

M. EUGÈNE GODARD will probably obtain authority to hold an international balloon race in Paris. The proceeds will be given to the families of Sivel and Spinelli.

The death is announced on Saturday last, at the early age of thirty-seven years, of Mr. Winwood Reade, whose name is no doubt familiar to readers of NATURE as the author of "Savage Africa" and the "African Sketch Book."

The Norwegian Storting has adopted the Government Bill for the introduction of the metrical system of weights and measures.

M. WURTZ is to remain the Dean of the Paris École de Médecine. The report of his resignation, to which allusion was made in our last number, has been contradicted.

In a paper on the age of the Tertiary deposits of Malta, published in the third part of the *Sitzungsberichte der Akademie der Wissenschaften in Wien*, Dr. T. Fuchs states that these beds belong to two distinct stages; the older, representing the "Bormidian" of Sismonda (Aquitania), may be regarded as equivalent to the Oligocene marine Molasse of Switzerland and Bavaria, the strata of Bajaz, Merignac, and some less known Central European deposits; the newer as equivalent to the "Leythakalk" of Vienna (Sarmatian stage). He states, in opposition to previous authors, that these two series of beds have scarcely any fossils in common, and remarks especially that the great Pectens and Echinoderms do not occur in the upper strata. Dr. Fuchs believes that many Syracusan Pliocene fossils have been described as derived from Malta. The two series are conformable in their stratification.

In a second paper in the same publication, Dr. Fuchs announces the occurrence of Miocene beds, which he also identifies with the "Leythakalk," unconformably underlying the Pliocene deposits near Syracuse, and forming a great plateau to the west of that city.

The same journal contains an interesting contribution to the palæontology of the Arctic regions, in the shape of descriptions of fossil shells from the Carboniferous Limestone and Zechstein rocks of Horn Sound, on the south-western coast of Spitzbergen, collected during the recent Austrian expedition to those regions. The author of the paper, Dr. F. Toulou, enumerates seventeen species of Brachiopoda, three of which are described as new, and a new Aviculopecten. Most of the fossils are figured.

MR. VAN VOORST has just ready for publication "The Flora of Eastbourne," by Mr. F. C. S. Roper, F.L.S., President of the Eastbourne Natural History Society.

PROF. HELMHOLTZ' work "On the Sensations of Tone, as a Physiological Basis for the Theory of Music," translated (with the author's sanction) from the third German edition, with additional notes and an additional appendix, by Mr. A. J. Ellis, F.R.S., is nearly ready, and will be published in the course of a week. It will be issued by Messrs. Longman and Co.

THE same firm will publish, during next month, "A Short Manual of Heat," for the use of Schools and Science Classes, by the Rev. A. Irving, Second Master of the High School, Nottingham.

THE following information, with regard to the Gresham Lectures, we take from the *Journal of the Society of Arts*:—"It appears that the nomination to vacancies as they occur among the lecturers, is alternate between those members of the Gresham Committee who are appointed by the Corporation of London, and those appointed by the Mercers' Company. It is understood that the filling up the present vacancy, occasioned by the resignation of the Rev. Jos. Pullen, the lecturer on astronomy, rests with the Corporation side of the Committee, and that they have determined to commence a reform in the administration of this bequest. They therefore intend to make the appointment annual, dependent on the popularity of the lecturer, to increase the number of English lectures, and to get rid altogether of the useless Latin lecture. It is to be hoped that the Mercers' Company will take up the question in a similar spirit."

THE *Journal of the Society of Arts* contains some details concerning Scientific and Literary Societies in India. The Bengal Asiatic Society was founded by Sir Wm. Jones in 1774, and the Madras Literary Society was formed in 1818. The Bombay branch of the Asiatic Society dates from the year 1804, and in 1817 it was grafted on to the Royal Asiatic Society in England as the Bombay branch. Its Journal was established in 1841, and the publication has been regularly kept up ever since at intervals of one or two years. The Bombay Geographical Society, which dates from 1830, was in 1873 amalgamated with the Bombay branch of the Asiatic Society. The Medical and Physical Society, though it languished from 1863 to 1869, has now been revived, and published a large volume of transactions in 1871. The Sassoon Mechanics' Institute has 346 members, courses of lectures, and a good library of reference of 13,935 books. In Calcutta, besides the venerable Asiatic Society, there are several other societies both for Europeans and natives, and for the latter alone. In Bombay, the Students' Literary and Scientific Society consists exclusively of natives, and has 111 members.

THE additions to the Zoological Society's Gardens during the past week include a Great Kangaroo (*Macropus giganteus*) from New South Wales, presented by Mr. Carleton V. Blyth; a second specimen and a Red Kangaroo (*Macropus rufus*) born in the Gardens; a Persian Gazelle (*Gazella subgutturosa*) from Persia, presented by Mr. C. Czarinkow; two Kinkajous (*Cercoleptes caudivolvulus*) from North Venezuela, presented by Mr. Chas. Campbell Downes; a Grey Ichneumon (*Herpestes griseus*) from India, presented by Mr. H. M. Grellier; a Macaque Monkey (*Macacus cynomolgus*), White var., from Samar, Philippines, presented by Mr. J. Ross; a Crowned Eagle (*Spizaetus coronatus*) from Senegal, received in exchange; two Silky Marmosets (*Midas rosalia*) from Brazil; an Ocelot (*Felis pardalis*) from South America, purchased.

EASTER WEEK AT THE SORBONNE

(Réunion des Délégués des Sociétés Savantes des Départements.)

THE idea of utilising the Easter vacation as the date, and the venerable Sorbonne as the place, of the annual gathering of the representatives of the learned societies of France was a very happy one, and, like all good ideas, it is crowned by a yearly increasing success. Numbers are but a feeble guide as to the importance of a gathering, yet even in numbers the list of delegates was strong (more than 250); but the true value of the meeting will be better estimated when we have given a brief report of some of the communications read and discussed, in doing which we shall necessarily mention some of the best-known names. We have purposely used the term "some of the communications," because, as the science list alone contains

ninety-one papers, it would obviously exceed our limits if we were to notice them all.

The first general meeting took place on Wednesday, March 31, at noon, under the presidency of M. Leverrier, who, after congratulating the members on the very full attendance, announced the nominations of the various sectional officers which had been made by the Minister of Public Instruction, viz. :—

1. Section for History and Philology.—President, M. Léopold Delisle; Vice-president, M. Lascoux; Secretary, M. Hippeau.

2. Section for Archæology.—President, M. le Marquis de la Grange; Vice-president, M. Léon Renier; Secretary, M. Chabouillet.

3. Section for Science.—President, M. Leverrier; Vice-president, M. Milne-Edwards; Secretary, M. Emile Blanchard.

After the transaction of some formal business, the meeting was closed. At 2 P.M. the members assembled in the various section-rooms, and the reading of papers commenced.

There were several interesting papers in the Sections of *History and Philology* and *Archæology*, and we regret that want of space prevents us referring to them in detail. We can only mention M. Le Héricher's paper on the "Application to Philology of the Darwinian Theory of 'the Struggle for Life';" M. Vimout's "Notice of the Archæological Excavations made under the superintendence of the Academy of Clermont-Ferrand on the summit of the Puy-de-Dôme;" and M. Léon de Vesly's, "On Symbolism in Egyptian and Asiatic Decorations."

Science.

This section was divided into three sub-sections, as follows :—
Mathematics : President, M. Dieu; Vice-president, M. Allegret; Secretary, M. Saint-Loup.

Physics and Chemistry.—President, M. Isidore Pierre; Vice-president, M. Lissajous; Secretary, M. F. Michel.

Natural Sciences.—President, M. de Rouville; Vice-president, Prof. Raulin.

Some of the communications were read only before the sub-sections, others both before the sub-section and the full section at its afternoon meetings; we however shall not distinguish between them, but, as with the other sections, give brief notes of the most important papers.

M. Léon Vidal.—"Photographs in Colours." M. Vidal submitted several albums of specimens of the results of his method, which he stated to be extremely inexpensive. As far as we were able to understand the method adopted, it appeared to be that of repeated colour-printing; if so, it is not easy to imagine how perfect specimens can be produced at the price stated, namely, 3 cents per copy.

M. Doumet-Adanson.—"Remarks on the formation of the Salt Lakes of Tunis." The author holds that the saline matter has been derived from the decomposition of the surrounding mountains, and rejects altogether the hypothesis of a great disturbance having simultaneously produced the Mediterranean and the Sahara.

Dr. de Piétra-Santa.—"Consumption in Algeria." The author stated that the evidence collected by the official inquiries of the Climatological Society of Algiers showed that while in the early stages of phthisis the climate of Algiers was beneficial, it was, on the other hand, fatal if it had reached an advanced stage.

Prof. Pousset.—"Application of the method of least Squares to the Radiants of Meteor-showers." This was illustrated by the discussion of nearly 500 observations for the determination of the radiant for August 1874.

Mr. Marsham Adams exhibited and described his Cœlometer and his Mensurator.

M. Tarrissan.—"Meteorological Observations on the Pic-du-Midi de Bigorre." The most salient facts in this communication were (1) that the rate of decrease of temperature with elevation is, in the Alps, 1° F. for 338 feet, and in the Pyrenees, 1° for 333 feet; (2) at equal altitudes the mean temperature is 5° higher in the Pyrenees than in the Alps, and the height of the snow line in the two districts is found conformable thereto, it being about 10,000 feet in the former, and 9,000 feet in the latter.

At the request of M. Leverrier, General de Nansouty ascended the tribune, and related his hazardous descent from the summit last December.

The General had resolved upon passing the winter at the observatory with an assistant and a mountaineer, but on December 11 the window of their house was smashed by a block of ice detached from a neighbouring peak by the wind.

They were unable to repair it; the temperature inside soon fell below zero Fahrenheit, and the observatory became uninhabitable. They battled with the storm for three days, but finally resolved on attempting to descend; in this they were successful, but it occupied sixteen hours instead of three, which are usually sufficient.

M. Mayet.—"Note on the Medical Statistics of the Hospitals of Lyons." This paper was rather a description of the method adopted than of the results obtained; M. Mayet, after classifying his data, plots them upon curve paper, and compares them with the principal meteorological elements.

M. Truchot.—"On the disintegration of the rocks of Auvergne considered in connection with the formation of arable land." The title of this paper sufficiently explains its nature, except that the author called special attention to the importance of phosphoric acid for agricultural purposes.

M. Abria gave a demonstration of the law of "Double total reflection in uniaxial crystals."

Prof. de Rouville.—"Geological maps of l'Hérault." The author briefly explained the maps which he exhibited and the geological features of the department, and incidentally pointed out the undesirability for many purposes of scientific maps terminating with political or legal rather than physical boundaries.

M. Sirodot.—"Complete dental system of the Mammoths." The author of this paper had certainly ample data whereupon to base his researches, for the collection which he exhibited completely covered the tables, and must have numbered at least 100, and ranged in size from two little milk teeth less than an inch long to full-sized specimens weighing many pounds.

M. Barthélemy gave a brief account of his researches on the respiration of plants, showing how it was continued even in a single leaf detached from the plant on which it had grown.

Prof. Raulin.—"Distribution of rain in the Alps."—The learned author gave a brief extempore summary of the seasonal distribution of rain in the Alps, based upon the records of about 200 stations, of which ninety-three were in the Alps and sixty-nine in Switzerland. He stated that the summer rains of Northern Germany extend to the very summits of the Alps, that the system of autumnal rains prevails on their southern slope, while the system of vernal and autumnal rains extends from the foot of the mountains to the banks of the Po. It is only thence, in the plains of Venetian Lombardy, that the system of summer droughts which prevails over Italy is fully established.—M. Renou asked what length of registers had been used, because he doubted if the periods were long enough to determine accurately the seasonal variation; he doubted if ten years was sufficient. Prof. Raulin said that usually the periods were much longer, and he added that, if the seasonal features were pronounced, three or four years would reveal to which class the station belonged, otherwise ten or even twenty years might be necessary.

Dr. Monoyer.—"New formula for determining the proper focal length of spectacles, and other questions in physiological optics." Perhaps the most important feature of this paper was the reference to, and exhibition of, a standard decimal typographical scale, printed in type of the same character throughout, but so graduated in size as to give a perfectly decimal measure of the power of the eyes. We should strongly urge oculists to obtain copies of this scale and introduce them into this country.

Prof. Rochard gave a most spirited and interesting description of his new "Musical Alphabet," of which, if it proves as successful in other places as it has at Nantes, we shall certainly hear more. The professor claims that it is to music what the nomenclature is to chemistry, and what numerals are to calculation; he showed how it almost annihilated the difficulty of time, lessened that of intonation, and facilitated the reading and writing of music. Speaking of the question of transposition and change of key, he added that he had almost ready a piano of which the pitch could be instantly altered to any extent, even in the middle of the most rapid playing. Prof. Rochard concluded by stating that his pupils at the Association Polytechnique had victoriously solved every difficulty put before them; nay, more, they had attacked problems impossible to be resolved by any other system than the musical alphabet.

Prof. Delage presented a memoir "On the Devonian system of the north of the department of Ille-et-Villaine and on its relation to the Silurian and Carboniferous systems." He showed, by a series of sections taken in the south of the department, that the order of superposition of the various Silurian beds is that adopted in the geological map of the department.